CLAIMS

What is claimed is:

1	 A method for publishing a PIN for use in establishing a pairing with
2	a printing device, comprising:
3	the printing device generating the PIN in response to a local PIN request;
4	and
5	the printing device printing the PIN.
1	2. The method of Claim 1, identifying a local request to print a test
2	page as the local PIN request and wherein printing the PIN comprises printing a
3	test page that includes the PIN.
1	3. A method for publishing a PIN for use in establishing a pairing with
2	an audio equipped device, comprising:
3	the audio equipped device generating the PIN in response to a local PIN
4	request; and
5	the audio equipped device audibly publishing the PIN.
1	4. The method of Claim 3, further comprising identifying a local
2 .	request to publish an audible message as the local PIN request, and wherein
3	publishing the PIN comprises publishing an audible message that includes the
4	PIN.
1	5. A method for initializing a device pairing, comprising
2	generating a PIN in response to a local PIN request;
3	publishing the PIN;
4	receiving a connection request with PIN data; and
5	generating a link key using the PIN data, the link key used for device
6	pairing.
1	6. The method of Claim 5, wherein publishing comprises printing the
2	PIN.

1	7.	The method of Claim 5, wherein publishing comprises audibly
2	publishing t	he PIN.
1	8.	The method of Claim 5, wherein the local PIN request is a local
2		print a test page, and wherein publishing comprises printing a test
3		icludes the PIN.
1	9.	The method of Claim 5, wherein the local PIN request is a local
2	request to p	publish an audible message, and wherein publishing comprises
3	publishing a	in audible message that includes the PIN.
1	10.	The method of Claim 5, further comprising determining the validity
2	of the PIN of	lata prior to generating the link key.
1	11.	The method of Claim 10, wherein determining includes determining
2	if the PIN da	ata corresponds to the PIN, determining if the generated PIN has
3	expired, and	d rejecting the connection request if the PIN data does not
4	correspond	to the PIN or if the PIN has expired.
1	12.	The method of Claim 5 further comprising rejecting the connection
2	request if the	ne connection request is for a function not associated with the PIN
3	data.	
1	10	A markhad for catablishing a valuing between a plaining device and
1	13.	A method for establishing a pairing between a claimant device and
2		device, comprising:
3		ving from the claimant device a connection request, the connection
4		uding PIN data;
5		mining whether a link key exists for the verifying device;
6	іт а ІІ	nk key exists:
7		rejecting the connection request if the verifying device is not
8		multi-claimant enabled;

multi-claimant enabled;

1	rejecting the connection request if the verifying device is
2	multi-claimant enabled with restricted access and the claimant
3	device is not approved;
4	otherwise, upon a determination that the PIN data is valid, generating a
5	link key from the PIN data to establish a pairing between the claimant device
6	and the verifying device.
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1	14. The method of Claim 13, further comprising:
2	generating a PIN in response to a local PIN request made to the verifying
3	device; and
4	instructing the verifying device to publish the PIN.
1	15. The method of Claim 14, wherein the PIN and the PIN data are of
2	the same format and wherein determining the validity of the PIN data includes
3	determining if the PIN data matches the generated PIN.
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1	16. The method of Claim 14, wherein determining the validity of the
2	PIN data comprises:
3	acquiring a unique identifier for the claimant device;
4	constructing verifying PIN data using the unique identifier and the
5	generated PIN;
6	determining if the PIN data matches the verifying PIN data.
1	17. A method for establishing a pairing between a claimant device and
2	a printing device, comprising:
3	generating a PIN in response to a local request to print a test page made
4	to the printing device;
5	instructing the printing device to print a test page that includes the PIN;
6	receiving from the claimant device a connection request, the connection
7	request including PIN data;
8	determining whether a valid link key exists exist for the printing device;
9	if a valid link key exists:
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1	rejecting the connection request if the printing device is not	
2	multi-claimant enabled;	
3	rejecting the connection request if the printing device is	
4	multi-claimant enabled with restricted access and the claimant	
5	device is not approved;	
6	otherwise, upon a determination that the PIN data is valid, generating a	
7	link key from the PIN data to establish a pairing between the claimant device	
3	and the printing device.	
1	18. A computer readable medium having instructions for:	
2	generating a PIN in response to a local PIN request;	
3	publishing the PIN;	
4	receiving a connection request with PIN data; and	
5	generating a link key using the PIN data to establish a device pairing.	
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1	19. The medium of Claim 18, wherein the instructions for publishing	
2	include instructions for printing the PIN.	
1	20. The medium of Claim 18, wherein the instructions for publishing	
2	include instructions for audibly publishing the PIN.	
1	21. The medium of Claim 18, wherein the local PIN request is a local	
2	request to print a test page, and wherein the instructions for publishing include	
3	instructions for printing a test page that includes the PIN.	
1	22. The medium of Claim 18, wherein the local PIN request is a local	
2	request to publish an audible message, and wherein the instructions for	
3	publishing include instructions for publishing an audible message that includes	
4	the PIN.	
1	23. The medium of Claim 18, having further instructions for	

determining the validity of the PIN data prior to generating the link key.

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. 1	24. The medium of Claim 23, wherein the instructions for determining	
2	include instructions for determining if the PIN data corresponds to the PIN,	
3	determining if the generated PIN has expired, and rejecting the connection	
4	request if the PIN data does not correspond to the PIN or if the PIN has expired.	
1	25. The medium of Claim 18, having further instructions for rejecting	
2	the connection request if the connection request is for a function not associated	
3	with the PIN data.	
1	26. A computer readable medium having instructions for:	
2	receiving from a claimant device a connection request, the connection	
3	request including PIN data;	
4	determining whether a link key exists for a verifying device;	
5	if a link key exists:	
6	rejecting the connection request if the verifying device is not	
7	multi-claimant enabled;	
8	rejecting the connection request if the verifying device is	
9	multi-claimant enabled with restricted access and the claimant	
10	device is not approved;	
11	otherwise, upon a determination that the PIN data is valid, generating a	
12	link key from the PIN data to establish a pairing between the claimant device	
13	and the verifying device.	
1	27. The medium of Claim 26, having further instructions for:	
2	generating a PIN in response to a local PIN request made to the verifying	
3	device; and	
4	instructing the verifying device to publish the PIN.	
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1	28. The medium of Claim 27, wherein the PIN and the PIN data are of	
2	the same format and wherein the instructions for determining the validity of the	
3	PIN data include instructions for determining if the PIN data matches the	
4	generated PIN.	

1	29. The medium of Claim 27, wherein the instructions for determining
2	the validity of the PIN data include:
3	acquiring a unique identifier for the claimant device;
4	constructing verifying PIN data using the unique identifier and the
5	generated PIN;
6	determining if the PIN data matches the verifying PIN data.
1	30. A computer readable medium having instructions for:
2	generating a PIN in response to a local request to print a test page, the
3	request being made to a printing device;
4	instructing the printing device to print a test page that includes the PIN;
5	receiving from a claimant device a connection request, the connection
6	request including PIN data;
7	determining whether a valid link key exists for the printing device;
8	if a valid link key exists:
9	rejecting the connection request if the printing device is not
10	multi-claimant enabled;
11	rejecting the connection request if the printing device is
12	multi-claimant enabled with restricted access, and the claimant
13	device is not approved;
14	otherwise, upon a determination that the PIN data is valid, generating a
15	link key from the PIN data to establish a pairing between the claimant device
16	and the printing device.
1	31. A system for publishing a PIN for use in establishing a pairing with
2	a printing device, comprising:
3	a pin module operable to generate the PIN in response to a local PIN
4	request; and
5	a publishing module operable to direct a print engine for the printing
6	device to print the PIN.
1	32. The system of Claim 31, wherein the local PIN request is a local

request to print a test page, and wherein the publishing module is operable to

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- 1 identify the request, to direct the PIN module to generate the PIN, and to direct 2 the print engine to print a test page that includes the PIN. 1 33. A system for publishing a PIN for use in establishing a pairing with 2 an audio equipped device, comprising: 3 a pin module operable to generate the PIN in response to a local PIN 4 request; and 5 a publishing module operable to direct the audio equipped device to 6 audibly publish the PIN. 1 34. The system of Claim 33, wherein the local PIN request is a local 2 request to publish an audible message, and the publishing module is operable to 3 identify the request, to direct the PIN module to generate the PIN, and to direct 4 the audio equipped device to publish an audible message that includes the PIN. 1 35. A system for initializing a device pairing, comprising 2 a pin module operable to generate a PIN in response to a local PIN 3 request; 4 a publishing module operable to publish the PIN: 5 a connection module operable to receive a connection request with PIN 6 data; and 7 a key module operable to generate a link key using the PIN data, the link 8 key used for device pairing. 1 36. The system of Claim 35, wherein the publishing module is operable
- 1 36. The system of Claim 35, wherein the publishing module is operable to direct a print engine to print the PIN.
- 1 37. The system of Claim 35, wherein the publishing module is operable to direct an audio equipped device to audibly publish the PIN.
- 1 38. The system of Claim 35, wherein the local PIN request is a local request to print a test page, and wherein the publishing module is operable to direct a print engine to print a test page that includes the PIN.

1	39. The system of Claim 35, wherein the local PIN request is a local
2	request to publish an audible message, and wherein the publishing module is
3	operable to direct an audio equipped device to publish an audible message that
4	includes the PIN.
1	40. The system of Claim 35, further comprising an authentication
2	module operable to validate the PIN data and to instruct the key module to
3	generate a link key upon a determination that the PIN data is valid.
1	41. The system of Claim 40, wherein the authentication module is
2	operable to determine if the PIN data corresponds to the PIN, to determine if the
3	generated PIN has expired, and to reject the connection request if the PIN data
4	does not correspond to the PIN or if the PIN has expired.
1	42. The system of Claim 35 further comprising an authentication
2	module operable to reject the connection request if the connection request is for
3	a function not associated with the PIN data.
4	43. A system for establishing a pairing between a claimant device and
5	a verifying device, comprising:
6	a connection module operable to receive from the claimant device a
7	connection request, the connection request including PIN data;
8	an authentication module operable:
9	to determine whether a valid link key exists for the verifying
10	device;
11	to reject the connection request if the verifying device is no
12	multi-claimant enabled and a valid link key exists;
13	to reject the connection request if the verifying device is
14	multi-claimant enabled with restricted access and the claimant
15	device is not approved;

1	to determine the validity of the PIN data and reject the	
2	connection request upon a determination that the PIN data is not	
3	valid; and	
4	a key module operable to generate a link key from the PIN data to	
5	establish a pairing between the claimant device and the verifying device.	
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1	44. The system of Claim 43, further comprising:	
2	a PIN module operable to generate a PIN in response to a local PIN	
3	request made to the verifying device; and	
4	a publishing module operable to instructing the verifying device to publish	
5	the PIN.	
1	45. The system of Claim 44, wherein the PIN and the PIN data are of	
2	the same format and wherein the authentication module is operable to determine	
3	the validity of the PIN data by determining if the PIN data matches the generated	
4	PIN.	
1	46. The system of Claim 44, wherein the authentication module is	
2	operable to validate the PIN data by:	
3	acquiring a unique identifier for the claimant device;	
4	constructing verifying PIN data using the unique identifier and the	
5	generated PIN;	
6	determining if the PIN data matches the verifying PIN data.	
1	47. A system for establishing a pairing between a claimant device and	
2	a printing device, comprising:	
3	a PIN module operable to generate a PIN in response to a local request to	
4	print a test page made to the printing device;	
5	a publishing module operable to instruct the printing device to print a test	
6	page that includes the PIN;	
7	a connection module operable to receive from the claimant device a	
8	connection request, the connection request including PIN data:	

ı	an authentication module operable:	
2	to determine whether a link key exists for the verifying	
3	device and if a link key exists;	
4	to reject the connection request if the verifying device is not	
5	multi-claimant enabled;	
6	to reject the connection request if the verifying device is	
7	multi-claimant enabled with restricted access and the claimant	
8	device is not approved;	
9	to determine the validity of the PIN data and reject the	
10	connection request if the PIN data is not determined to be valid;	
11	and	
12	a key module operable to generate a link key from the PIN data to	
13	establish a pairing between the claimant device and the verifying device.	
1	48. A system for publishing a PIN for use in establishing a pairing with	
2	a printing device, comprising:	
3	a means for identifying a local PIN request;	
4	a means for generating the PIN in response to the local PIN request; and	
5	a means for directing a print engine for the printing device to print the	
6	PIN.	
1	49. The system of Claim 48, wherein the means for identifying is a	
2	means for identifying a local request to print a test page, and wherein the means	
3	for directing is a means for directing the print engine to print a test page that	
4	includes the PIN.	